

Support for Amendment

Claim 1 is amended to characterize the step of mixing a hydrated component and a hydratable component as a step that occurs without heating. This amendment is supported by the Specification at page 5, lines 6-9. Claim 16 is amended to characterize the molded detergent composition as a result of mixing and molding a composition without heating. This amendment is supported by the Specification on page 5, lines 6-9. New claims 27 and 28 are based upon original claims 11 and 12. New claims 29 and 30 are based upon original claim 16 and the Specification at page 10, line 24 through page 11, line 20. New claims 31 and 32 are based upon original claim 1 and the Specification at page 12, lines 10-19. New claims 33 and 34 are based upon original claim 16 and the Specification at page 12, lines 10-19. Accordingly, no new matter is introduced by this amendment, and entry thereof is requested. Upon entry, claims 1-34 are active in this application.

Remarks

The invention relates to a method for manufacturing a molded detergent composition and to a molded detergent composition. The method for manufacturing a molded detergent composition includes steps of mixing a hydrated component and a hydratable component to provide a mixture, and molding the mixture to provide a molded detergent composition having a melting point greater than about 30°C. The hydrated component has a melting point below about 100°C and comprises a transhydration product of an anhydrous material and water of hydration, wherein the anhydrous material has a melting point greater than about 300°C. The hydratable component, if it includes any water at all, includes water at a level of less than about 2 wt.% based on the weight of the hydratable component. In addition, the hydratable component is a component that successfully competes with the hydrated component for at least portion of the water of hydration provided as part of the hydrated component. According to amended claim 1, the step of mixing occurs without heating. According to new claims 27, 28, and 31, the method for manufacturing a molded detergent composition occurs in the presence of either an enzyme or a solvent. The molded detergent composition according to the invention is provided as a result of the method for manufacturing a molded detergent composition. According to amended claim 16, the molded detergent composition is a result of mixing and molding a composition without heating during the steps of mixing and molding. New claims 27-34 refer to molded detergent

compositions or methods that include an enzyme or a solvent. Although new claims 27-34 do not explicitly require an absence of heating, it is clear from the Specification beginning at page 10, line 15, that enzymes and solvents can be considered heat sensitive materials and that these claims require an absence of heating to an extent that damages or removes the enzyme or the solvent. That is, these claims permit heating but not to an extent that damages the enzyme so that the molded detergent composition does not contain between about 0.01 wt.% and about 10 wt.% enzyme, or to an extent that causes removal of the solvent.

The outstanding Office Action includes two prior art-based rejections. Claims 1-7 and 9-26 stand rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,670,473 (*Scepanski*). Claim 8 stands rejected under 35 U.S.C. § 103(a) over *Scepanski* and U.S. Patent No. 6,177,392 (*Lentsch et al.*). These rejections are traversed.

Scepanski describes a method for forming a solid cleaning agent from hydrated forms of salts that includes heating and melting the hydrated forms of salts. The Examiner's attention is directed to *Scepanski* at column 3, lines 30-32 and lines 50-55. In contrast, the claimed invention either excludes a step of heating when mixing the hydrated component and the hydratable component or functionally excludes heating to an extent that damages or removes enzymes or solvents present in the mixture. By teaching a step of melting hydrated forms of salt to form a solid cleaning agent, *Scepanski* teach away from the claimed invention. Accordingly, the claimed invention is not anticipated by *Scepanski*, and withdrawal of the rejection over *Scepanski* is requested.

It is submitted that the claimed invention would not have been obvious from *Scepanski*. By teaching the melting of the hydrated forms of salt, *Scepanski* is teaching that the salt must be provided in a melt form that has no crystalline structure or water of hydration. It is pointed out that by melting a hydrated salt, the salt loses its crystalline structure and water no longer participates in the crystalline structure and that means that there is no water of hydration. Instead, the water becomes free water associated with the melted salt. In contrast to *Scepanski*, the present invention provides for a solid hydrated component that reacts with either a solid hydratable component or a liquid hydratable component in a competitive hydration reaction. It is submitted that this type of reaction is not suggested by *Scepanski*.

Lentsch et al. fails to cure the defects identified above with respect to *Scepanski*. *Lentsch et al.* describe the formation of solid detergents that include a source of alkalinity, a sequestrant,

and an E-form hydrate binding agent. See *Lentsch et al.* at column 4, lines 33-35. It is understood that the E-form hydrate binder is formed by a reaction of organo-phosphonate, water, and alkali metal carbonate. See *Lentsch et al.* at column 4, lines 45-65. It is submitted that *Lentsch et al.* fail to suggest modifying *Scepanski* to provide a process wherein the hydrated forms of salts according to *Scepanski* are not melted in order to form the hydrated salt cleaning agents. That is, one having ordinary skill in the art would not have received the suggestion from *Lentsch et al.* to modify the process described by *Scepanski* to omit the step of melting the hydrated forms of salts.

In view of the above comments, withdrawal of the rejection over *Scepanski* and *Lentsch et al.* is requested.


The outstanding Office Action includes a rejection of claim 5 under 35 U.S.C. § 112, second paragraph. It is believed that the above amendment has rendered this rejection moot. Accordingly, withdrawal of this rejection is requested.

It is believed that this application is in condition for allowance. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 1, 5, and 16 have been amended as follows:

1. (Amended) A method for manufacturing a molded detergent composition, the method comprising steps of:

(a) mixing a hydrated component and a hydratable component, without heating, to provide a mixture:

(i) the hydrated component having a melting point below about 100° C and comprising a transhydration product of an anhydrous material and water of hydration, the anhydrous material having a melting point greater than about 300°C;

(ii) the hydratable component comprising water, if present at all, at a level of less than about 2 wt.% based on the weight of the hydratable component; and

(iii) the hydratable component being a component which successfully competes with the hydrated component for at least a portion of the water of hydration; and

(b) molding the mixture to provide a molded detergent composition having a melting point greater than about 30° C.

5. (Amended) A method according to claim 1, wherein the step of mixing further comprises mixing butoxy ethanol with the hydrated [inorganic] component and the hydratable component.

16. (Amended) A molded detergent composition comprising:
a result of mixing and molding a composition without heating, the composition
comprising:

(a) hydrated component and a hydratable component;

(b) the hydrated component having a melting point below about 100° C and comprising a transhydration product of an anhydrous material and water of hydration, the anhydrous material having a melting point greater than about 300° C;

(c) the hydratable component comprising water, if present at all, at a level of less than about 2 wt.% based on the weight of the hydratable component;

- (d) the hydratable component being a component which successfully competes with the hydrated component for at least a portion of the water of hydration; and
- (e) the molded detergent composition having a melting point greater than about 30°C.

Claims 27-34 have been added.